

last letter and a photograph of the Willow, came only a few days before the telegram announcing his death. Botany therefore occupied his thoughts during his last days on earth.

The death of Percival Lowell is a severe loss to the Arboretum. He understood its purpose and sympathized with its efforts to increase knowledge. Few collectors of plants have shown greater enthusiasm or more imagination, and living as he did in what he has himself described as "one of the most interesting regions of the globe" there is every reason to believe that as a botanist Percival Lowell would have become famous.

ARNOLD ARBORETUM.

THE GENUS ERECHTITES IN TEMPERATE NORTH AMERICA.

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WHILE botanizing in October last along the sandy strand on the south side of Cape Cod, Messrs. F. K. Butters, Harold St. John, and the writer found a characteristic *Erechtites* which seemed unusual on account of its very fleshy foliage and the very broadly ovoid and abruptly acuminate heads. A few specimens were collected for further examination, at Hyannis on October 7, at Yarmouth on October 8; and after returning to Cambridge the writer was surprised to find that in its very long inflated achenes and in some other characters the strand plant was quite unlike *E. hieracifolia*. Consequently, with Professor Butters he returned to the Cape and on October 14th made a further examination and collection of the strand plant, which in all its characters maintains the distinctions noted in the original collections. The plant seems to be a very well marked species which is here proposed as

ERECTITES megalocarpa, n. sp., ab *E. hieracifolia* differt foliis subcarnosis; capitulis ovoideis abrupte acuminatis; involucre 1.5-2 cm. alto, bracteis lanceolatis subobtusis ad basim dilatata 1-3 mm. latis; corolla floris perfectae brunneo-lineata, lobis brunneo-marginatis nervatisque, tubo viride; acheniis 4-5.5 mm. longis brunneis vel

olivaceis glabris vel paulo strigosis 16–20 costatis, plus minusve inflatis ad apicem versus annulo albido munitis ex quo basis styli persistens protrudit; receptaculo denudato 1–1.2 cm. diametro.

Differing from *E. hieracifolia* in its somewhat fleshy leaves: heads ovoid, abruptly acuminate: involucre 1.5–2 cm. high; its bracts lanceolate, obtusish, 1–3 mm. broad at the dilated base: corolla of the perfect flower with brown lines; the lobes with brown margin and mid-nerve; the tube green: achenes 4–5.5 mm. long, brown or olive, glabrous or a little strigose, 16–20-ribbed, more or less inflated, toward the apex bearing a white annulus (formed by the bases of the pappus-bristles) from which protrudes the persistent style-base: denuded receptacle 1–1.2 cm. in diameter.—MASSACHUSETTS: upper border of sandy sea-beach, Hyannis, Barnstable, October 7, 1916, *Fernald, Butters & St. John*, no. 15,467; upper and middle regions of sandy sea-beach, West Yarmouth, Yarmouth, October 8, 1916, *Fernald, Butters & St. John*, no. 15,468 (TYPE in Gray Herb.) also October 14, 1916, *Fernald & Butters* in *Plantae Exsiccatae Grayanae*.

In the course of this study it has become apparent that *Erechtites hieracifolia* is a very polymorphous plant and that much tropical American material referred to it belongs clearly to some other species. In the eastern United States and Canada the plant although apparently all of one species is very variable, so much so that it is difficult to reconcile the ordinary descriptions with many of the specimens. Thus we find in standard descriptions that the upper leaves are, as described by Gray, “commonly with auriculate partly clasping base”;¹ or by Small, “sessile and partly clasping.”² Yet if we consult Rafinesque’s original treatment of *Erechtites* we shall find that he had but one species, the type of the genus, *E. praealta*, accurately described, as abundant specimens show, “foliis alternis sessilibus basi attenuatis,”³ and said to have “some similarity of habit, &c. with *Senecio hieracifolius* L.”³ It was not until twenty years later, and then by proxy,⁴ that Rafinesque admitted the Linnean *Senecio hieracifolius* with auriculate-based partly clasping leaves to the genus *Erechtites*.

That the Linnean *Senecio hieracifolius* had auriculate-based clasping leaves is quite clear from the plate of Hermann’s *Senecio Africanus* [corrected by Linnaeus to *americanus*] *altissimus Blattariae vel Hieracii folio*,⁵ from which Linnaeus derived his specific name; and the

¹ Gray, *Syn. Fl.* i. pt. 2, 396 (1886).

² Small, *Fl. S. E. U. S.* 1300 (1903).

³ Raf. *Fl. Ludov.* 65 (1817).

⁴ *E. hieracifolia* (L.) Raf. in lit. in DC. *Prodr.* vi. 294 (1837).

⁵ Herm. *Par. ed.* 2, 226, t. 226 (1705).

same character of the leaves is emphasized in the other citations given by Linnaeus, in which we find the significant phrase: "foliis amplexicaulibus."¹ These two plants, *Erechtites hieracifolia* (L.) Raf. and *E. praealta* Raf., are in their involucre and achenes clearly extremes of one species, but so different in foliage that they should be designated as forms or varieties.

True *E. hieracifolia* has the broad-based auriculate more or less clasping leaves scarcely decreasing in size into the inflorescence and is beautifully shown in Hermann's plate. The commonest variation of the species, at least as indicated by herbarium-representation, is neither the large-leaved typical form nor *E. praealta* but a plant with the upper leaves sessile and broad at base but very rapidly decreasing to small bracts below the inflorescence.

Although found through broad ranges these three rather pronounced variations do not seem to coincide in their distribution, at least in the Northeast. Typical *E. hieracifolia* is apparently common near the coast in southern New England, extending north along the larger valleys to central Maine, central New Hampshire, and the Champlain Valley, and west locally to Illinois. The intermediate variety, with broad-based but greatly reduced upper leaves, is apparently the commonest and most widespread, occurring from Texas to South Carolina and north to Ontario, Quebec and Prince Edward Island; while the plant with the upper leaves attenuate to base or even petioled, *E. praealta* Raf., described from Louisiana, extends eastward to Florida and north to Indiana, Ohio and southern Maine. As at present known the three plants seem to have somewhat different ranges and they are, therefore, here treated as geographic varieties.

To summarize, our species and varieties of *Erechtites* may be distinguished as follows:

Heads subcylindric, only slightly gibbous at base: bracts of the involucre linear, with a slender attenuated tip, 0.5-1.5 mm. broad at the scarcely dilated base: corolla of the perfect flower not brown-lineate; its tube pale straw-color: achenes 2-3 mm. long, not inflated, with 10-12 pale ribs and strigose brown furrows; the terminal annulus (formed by the bases of the pappus-bristles usually without a beak (the persistent style-base) protruding from the center: denuded receptacles 5-8.5 mm. in diameter.

1. *E. hieracifolia*.

Heads ovoid, abruptly acuminate, strongly gibbous at base (when fresh): bracts of involucre lanceolate, subobtuse, 1-3 mm. broad at the dilated

¹ L. Sp. Pl. ii. 866 (1753).

base: lobes of the corolla of the perfect flower with brown borders and midribs; the tube green; achenes 4–5.5 mm. long, inflated, with 16–20 ribs and glabrous or slightly strigose furrows; the annulus with a distinct beak protruding from the center: denuded receptacles 1–1.2 cm. in diameter.

2. *E. megalocarpa*.

1. *E. HIERACIFOLIA* (L.) Raf. in DC. Prodr. vi. 294 (1837).—
Three varieties.

Upper leaves with broad sessile or somewhat clasping bases.

Leaves scarcely decreasing in size into the inflorescence...Var. *typica*.

Upper leaves rapidly reduced to bracts below the inflorescence.

Var. *intermedia*.

Upper leaves attenuated to base or petioled.....Var. *praealta*.

Var. **typica**. *Senecio hieracifolius* L. Sp. Pl. ii. 866 (1753).— Central Maine to Illinois, south to Connecticut, and presumably southward.

Var. **intermedia**, n. var. foliis caulinis gradatim minoribus, superioribus valde reductis vel bracteiformibus sessilibus basi latis.— Prince Edward Island to South Carolina, west to western Ontario, Kansas and Texas. TYPE: Cumberland, Rhode Island, September 13, 1903, *E. F. Williams* (Gray Herb.).

Var. **praealta** (Raf.), n. comb. *E. praealta* Raf. Fl. Ludov. 65 (1817).— Southern Maine to Florida, west to Indiana, southern Illinois and Louisiana.

2. *E. MEGALOCARPA* Fernald. See above.

GRAY HERBARIUM.

A VARIETY OF SPARTINA NEW TO NEW ENGLAND.— Recently in working over some grasses from the herbarium of William Boott, a collection long ago acquired by the Gray Herbarium, I found a specimen of *Spartina alterniflora* Lois. var. *glabra* (Muhl.) Fernald (RHODORA, xviii. 178) from Middlesex County, Massachusetts, collected presumably near Medford. It was labeled Medford Turnpike, September, 1852, in Boott's handwriting. As this variety seems not to have been previously reported north of Virginia this considerable extension of range seems worthy of record.— F. TRACY HUBBARD, Boston, Massachusetts.